

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Allyn Hubbard, et al.  
Serial No.: Not yet assigned  
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Title: APPARATUS FOR PERFORMING ASSAYS AT REACTION SITES  
Art Unit: Not yet assigned

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Mail Stop Reissue  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**PRELIMINARY AMENDMENT**

Prior to examination, kindly amend the above-identified application as follows.

**In the Claims**

Please add the following claims:

53. (New) An apparatus comprising:

\_\_\_\_\_ a chip constructed and arranged to be rotatable about an axis passing through the chip, the chip comprising a plurality of predetermined reaction sites wherein the predetermined reaction sites are constructed and arranged to support a cell.

54. (New) An apparatus comprising:

\_\_\_\_\_ a chip constructed and arranged to be rotatable about an axis passing through the chip, the chip comprising at least 20,000 predetermined reaction sites wherein the predetermined reaction sites include solid support substrates constructed and arranged to bind a target selected from mammalian cells, bacteria, yeast, protozoa, viruses phages and combinations thereof.